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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,165	02/09/2006	Dario Toncelli	SAIC2235510078800110	7808
26304	7590	01/07/2009		
KATTEN MUCHIN ROSENMAN LLP			EXAMINER	
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NEW YORK, NY 10022-2585			ART UNIT	PAPER NUMBER
			4122	
			MAIL DATE	DELIVERY MODE
			01/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claims 1-8, drawn to the method.

Group 2, claims 9, drawn to the product by process.

2. The inventions listed as Groups 1 and 2 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the dual-layer slab article as claimed can be made by another method such as that disclosed by Bretonstone and thus does provide any contribution to the art.

During a telephone conversation with the attorney, Hassan A. Shakir on 12/3/08 a provisional election was made without traverse to prosecute the invention of Group 1, claims 1-8. Affirmation of this election must be made by applicant in replying to this Office action.

Claim 9 is withdrawn from further consideration pursuant to 37 CFR 1.142(b).

Claim Rejections- 35 USC §112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language “mix comprising a granular material, a filler and a hardening resin” in the preamble of claim 1 is inconsistent with that recited in step (a) of the same claim reciting “consisting of”.

For purposes of examination, the examiner is going to consider the mix to comprise of a granular material, a filler, and a hardening resin.

Claim Rejections- 35 USC §102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 2, 4, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Toncelli (WO 01/45921).**

Toncelli discloses a method for the production of dual-layer slabs comprising a first layer of conglomerate formed from a mix comprising a granular material, a filler and a hardening resin and a second layer, or rear layer, formed from a mix comprising a hardening resin which is identical to or compatible with that forming said first layer, and

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a granular material of a light weight on Page 1, Lines (8-18), and on page 18 (Lines 3-7).

Regarding Claim 1, step (a), Toncelli discloses preparation of a mix comprising of a hardening resin and a granular material intended to form the visible side of the final slab article on Page 10 (Lines 1-25).

Regarding Claim 1 step (b), Toncelli, on Page 9, Line 1 and on Page 11, Lines (4-10) discloses deposition of the mix in the form of a thin layer –referred to as first layer- on a support consisting of rubber or similar elastic material-or first rubber sheet-lined with a separating material.

Regarding Claim 1 step (c), Toncelli, on Page 13, Lines (3-27) discloses deposition, on the free surface of the first layer, of a web of continuous glass filaments pre-impregnated with a hardening resin identical to. or compatible with, that forming the mix of said first layer.

Regarding Claim 1 step (d), Toncelli, on Page 20, Lines (19-25) discloses deposition, on top of said web, of a layer, referred to as second layer, of a mix formed by a hardening resin having a nature identical to or compatible with that present in said first layer, by a filler and by a light granular material, the said hardening resin being present in the mix with a volumetric percentage substantially equal to that present in said first layer.

Regarding Claim 1 step (e), Toncelli, on Page 22, Lines (11-14), discloses application, on top of the free surface of said second layer, of a second sheet of rubber or elastic material lined with separating material.

For Claim 1 step (f), Toncelli, on Page 20, Lines (1-8), discloses vacuum compaction by means of application of a pressure on top of said second rubber sheet and simultaneous application of a vibratory movement of predetermined frequency.

Regarding Claim 1 step (g), Toncelli, on Page 1, Lines (25-27) and on Page 22, Lines (21-24), discloses hardening of the hardening resin by means of the action of heat and/or a catalyst.

Regarding Claim 1 step (h), Toncelli, on Page 10, Lines (5-6) discloses finishing of the resultant slab article; wherein a filler in the form of a fine powder is added to said mixes.

Regarding Claim 2, Toncelli on Page 13 Lines (7-21), teaches that the addition of inorganic material to the mixture having a grain size of 1.2 mm which falls within the claimed range. The inorganic material would inherently be expanded with a substantially spheroidal form. Toncelli on Page 10 Lines (1-6), also discloses the method comprising the step of adding inorganic materials in granular form with the option of adding an inorganic material.

Regarding Claim 4, Toncelli on Page 10 Lines (25-27) discloses a hardening resin is preferably an epoxy resin or polyester resin.

Regarding Claims 6 and 7, Toncelli on Page 10, Lines (19-23), discloses a granular material present in said first layer of a stony and/or calcareous and/or siliceous type being quartzes, or quartzites, granites, glass, metals, shells, ceramics of all kinds, minerals of various kind.

Claim Rejections- 35 USC §103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 3 is rejected under U.S.C. 103 (a) as being unpatentable over Toncelli (WO 01/45921) in view of Rosendahl (DE 3043869).

Regarding Claim 3, Toncelli discloses on page 13 Lines (3-5) that a new product can be further enhanced by adding filamentous aggregates, e.g. inorganic fibers like glass to the mixture. Claim 3 differs from Toncelli in that Toncelli does not teach choosing the light granular material from expanded clay. Rosendahl, (in the Abstract), teaches using expanded clay for the production of slabs of lightweight material in order to prevent subsequent disintegration.

Based on these teachings, it would have been obvious to one having ordinary skill in the art to choose the granular material from expanded clay of Rosendahl in order to reinforce the slab of Toncelli and thus prevent disintegration.

9. Claim 5 is rejected under U.S.C. 103 (a) as being unpatentable over Toncelli (WO 01/45921) in view of Peccenini et al. (US 4268574).

Regarding Claim 5, Toncelli discloses on page 10 Lines (25-27) that said hardening resin is preferably an epoxy resin or a polyester resin. However, Toncelli does not teach adding an organofunctional silane to the polyester resin. Peccenini et al. teaches the addition of organofunctional silane to polyester resin for the purpose of improving bond strength in the manufacture of layered structures.

Based on these teachings, it would have been obvious to one having ordinary skill in the art to add the organofunctional silane to the hardening resin, i.e., epoxy resin or polyester resin as a coupling agent in order to improve bonding between layers.

10. Claim 8 is rejected under U.S.C. 103 (a) as being unpatentable over Toncelli (WO 01/45921) in view of Bellasalma et al. (US 4959401).

Regarding Claim 8, Toncelli discloses on page 10 Lines (19-23), a filler is chosen from quartz. However, Toncelli does not teach using quartz in the form of cristobalite. Bellasalma et al. (column 3, Lines 31-35) teaches using silicon dioxide (i.e., cristobalite) as a high temperature melting binder which also provides clarity in the finished product.

Based on these teachings, it would have been obvious to one having ordinary skill in the art to choose the quartz in the form of powdered cristobalite in order to enhance the clarity of the finished product.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROSHANAK ARYAN-NEJAD whose telephone number is (571)270-7665. The examiner can normally be reached on M-F, 8:30-6:00, except every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RA/

/Milton I. Cano/
Supervisory Patent Examiner, Art Unit 4122